

# OUTLOOK

A WEEKLY NEWSPAPER FOR FACULTY AND STAFF AT THE UNIVERSITY OF MARYLAND AT COLLEGE PARK

JANUARY 25, 1993  
VOLUME 7, NUMBER 16

## Space Systems Laboratory Demonstrates "Flying" Robots in Neutral Buoyancy Research Tank

The Space Systems Laboratory (SSL) demonstrated remotely-controlled space robots January 14 at its new Neutral Buoyancy Research Facility (NBRF).

The day included technical presentations and demonstrations of robots in a simulated weightless environment performing operations such as approaches and dockings, surface inspections, positioning and manipulations, structural assembly and satellite servicing.

NBRF is a new \$1.7 million NASA-sponsored facility that tests telerobots (remotely-controlled robots) in a large water tank under simulated weightless conditions. Robots similar to the ones tested will eventually be employed in space by NASA or industry for satellite repair operations or construction of the planned space station.

The robots are tested in SSL's new neutral buoyancy tank, which is similar to a deep, round swimming pool. The tank is 25 feet deep and 50 feet in diameter. It holds 367,000 gallons of crystal clear water, and is heated to 90 degrees Fahrenheit to comfortably accommodate scuba divers who assist during experiments. Several large port holes allow observers or cameras to view underwater operations at various depths.

The Neutral Buoyancy Research Facility is the only university-based facility of its type. It became operational at College Park in August 1992 under director David Akin, associate

professor of aerospace engineering, who serves jointly with the university's Institute for Systems Research.

Akin brought the \$3 million Space Systems Laboratory to the University of Maryland at College Park in August 1990 from the Massachusetts Institute of Technology. While at MIT, lab experiments were conducted in the campus swimming pool during limited hours due to a lack of space. Akin came to Maryland because of the university's close proximity to the Goddard Space Flight Center and because the university provided space for the construction of the 14,000 sq.ft. facility.

Akin and his colleagues, along with about 32 graduate and undergraduate students, tested five telerobots at the facility, including Ranger, "a four-armed satellite repair robot that is the forerunner of a version that will be launched by NASA on a Delta rocket in 1996. Once in space, Ranger will be remotely operated from a control platform at the campus facility.

Other robots featured at the



demonstration, which was covered by *The Sun*, *The Prince George's Journal*, *Space News*, and *Washington Technology*, include SPAM (Stewart Platform Augmented Manipulator), a robotic crane; MPOD (Multimode Proximity Operations Device), a robot that maneuvers payloads such as satellites; BAT (Beam Assembly

A student engineer works with SCAMP (Supplemental Camera and Maneuvering Platform) in the Neutral Buoyancy Tank.

*continued on page 3*

## President Returns from Taiwan with New Alumni Club, Cooperative Agreements

President William E. Kirwan recently returned from Taipei, Taiwan, where he met with alumni and government, corporate and education leaders to discuss cooperative programs. Kirwan was traveling as a guest of the Ministry of Education of the Republic of China on Taiwan.

Since 1988 more than 500 students from Taiwan have graduated from College Park. An informal group of approximately 75 alumni already meets in Taipei on a regular basis, so the university would like to formalize and expand this group.

"Students and alumni have always been the backbone of any university, and we are fortunate at Maryland to have so many outstanding alumni in Taiwan who are dedicated to the University of Maryland at College Park," says Kirwan.

UMCP alumni living in Taiwan include C.S. Shen, professor of physics and former dean of science, Tsinghua University, and Commissioner of the National Election Council; Chun-Shyong Chang, professor and

chairman, Department of Insurance, National Chengchi University, and board member, Taiwan stock exchange; Li Chin-An, anchorwoman, Chinese Television News; Bert Lim, president, World Economic Society; and Jimmy Tsay, professor of accounting, National Taiwan University; and W.S. Lin, president of Tatung Co.

During a reception for all alumni that was held on January 5 at the National Theatre in Taipei, Dr. Kirwan presented the alumni with an official charter as a new alumni club. C.S. Shen was then elected the new president.

During a hectic six-day stay that left no time for sightseeing, Kirwan had more than 20 appointments with corporate and government leaders, university presidents and museum directors.

Accompanying Kirwan were George Dieter, professor and dean of the College of Engineering, Richard

*continued on page 4*

## INSIDE

### Preserving History

University and National Park Service Reach Cooperative Agreement.....2

### Galston Goes to the White House

Public Affairs Prof. Will Serve on Domestic Policy Council.....2

### George Ross Jr., 1938-93

Musician and Educator Was Founder of Jazz Studies Division.....3

### Calendar

Black History Month Opening Ceremonies Begin Feb. 1 at Noon...4

## Volunteers Needed for Nutrition Study

Women, age 50 to 65, are needed for a paid nutrition study at the USDA in Beltsville, MD. Volunteers must be postmenopausal, non-smoking and willing to consume alcoholic beverages. The study will begin in late January or February and will be completed by July 4, 1993. If interested, please call 504-8168 and leave your name, address, and daytime phone number.

## National Park Service and University Join Forces In Historic Preservation

A new cooperative agreement with the National Park Service (NPS) will make College Park a training center in historic preservation and improve resources for graduate students in the field.

At a December 9 reception at the Rossborough Inn, representatives from the university, NPS, the Maryland Historical Trust, and the local preservation community formally celebrated the signing of the agreement, which will help make Maryland a leader in historic preservation.

The cooperative agreement was entered into by the Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER), a division of the National Park Service, and the university's Historic Preservation Certificate Program, an interdisciplinary graduate program involving seven academic units: American Studies, Anthropology, Geography, Architecture, History, Horticulture, and Urban Studies and Planning.

Administered by Mary Corban Sies, assistant professor

with the Department of American Studies, the cooperative agreement's goals are:

- To provide an exchange of knowledge between HABS/HAER staff and students in the Historic Preservation Certificate Program;
- To develop interest in the value of federal historic preservation programs, providing an opportunity for students to directly observe the administration and management of a national historic preservation program;
- To develop a preservation program at the University of Maryland that would enable NPS divisions to provide training to a national audience;
- And to forward the national understanding of historic preservation as it relates to the goals of HABS/HAER and NPS.

To meet these goals, the National Park Service has provided nearly \$30,000 for two semester-length

courses, two short courses open to the general public (March 24-27 and April

19-22), a spring '93 lecture series, and a student internship.

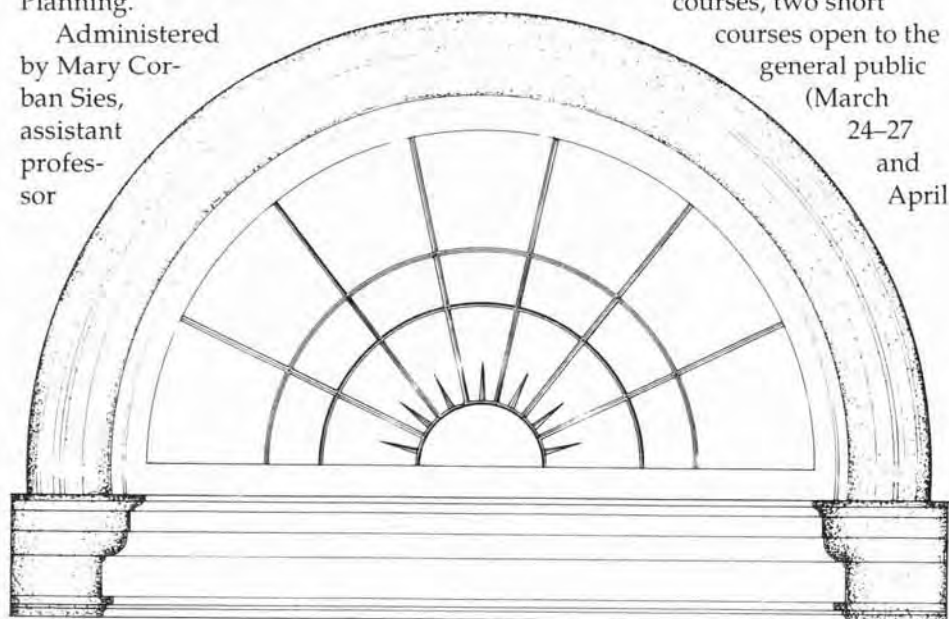
The first lecture, "The Living in the Dead: Making Monuments out of Human Action," featuring Bernard L. Herman from the University of Delaware, will be held February 2 at 7:30 p.m. in the Architecture Auditorium. Other lectures will be held February 16, March 2 and 30 and April 20. Refer to the weekly Calendar for more information on these lectures and the short courses.

According to David Fogle, director of the Historic Preservation Certificate Program, an ongoing grant with the regional office of the NPS has already provided paid internships for Maryland students. Four students are currently engaged in research at Harper's Ferry National Historic Site.

"Our association with the National Park Service, the leading source of programmatic and financial support in the U.S. for historic preservation, puts Maryland in the forefront of the three dozen or so college and university preservation programs in the country," says Fogle.

—John Fritz

Student drawings by Walter E. Leon, and Michael J. Siebert, who took "Measured Drawings for Historic Preservation," which was offered this fall through the new cooperative agreement with the National Park Service.



## Galston Appointed to White House Staff

Late last week, William Galston, professor in the School of Public Affairs, was appointed deputy assistant to the president for domestic policy. He becomes one of four staff members whose primary assignment is to work on the new president's Domestic Policy Council.

"The council will address a wide range of issues," said Galston as he busily packed up his office the day before the Inauguration, "so I'll have a fairly wide portfolio of assignments."

Galston, who came to the university in 1988, has been a long-time advisor to the Democratic Leadership Council. His public experience includes serving as issues director for Walter Mondale's presidential campaign and as a senior advisor to Albert Gore Jr. during his bid for the party's presidential nomination.

"I'm already quite busy attending meetings and getting ready," said Galston, who will take yearly leaves of absence during his service on the White House staff. "I'm very pleased to have this opportunity to serve."

## OUTLOOK

*Outlook* is the weekly faculty-staff newspaper serving the College Park campus community.

**Kathryn Costello** Vice President for Institutional Advancement  
**Roland King** Director of Public Information  
**Judith Blair** Director of Creative Services

**John Fritz** Editor  
**Fariss Samarral** Contributing Writer  
**Gary Stephenson** Contributing Writer  
**Beth Workman** Contributing Writer  
**Laurie Gaines** Editorial Assistant

**John T. Consoli** Format Designer  
**Kerstin A. Neteler** Layout & Production  
**Al Danegger** Photography  
**Jennifer Grogan** Production Interns  
**Susan Heller**

Letters to the editor, story suggestions, campus information & calendar items are welcome. Please submit all material at least two weeks before the Monday of publication. Send it to Editor *Outlook*, 2101 Turner Building, through campus mail or to University of Maryland, College Park, MD 20742. Our telephone number is (301) 405-4621. Electronic mail address is jfritz@umdacc.umd.edu. Fax number is (301) 314-9344.

UNIVERSITY OF MARYLAND AT COLLEGE PARK



## Nominations Open for Distinguished Lecturer Series

Who would you most like to invite to campus for the 1993-94 Distinguished Lecturer Series of the Graduate School? Metamorphoses, the theme for the series, has been deliberately left open for interpretation. The campus community is invited to send nominations by February 1 to Distinguished Lecturer Series (DLS), Department of Art History and Archaeology. The DLS committee includes Peter Brown (public affairs), Richard Etlin (architecture), William Hall (psychology), June Hargrove (art history), James Lesher (philosophy), Chuan Liu (physics), Carla Peterson (comparative literature), and Arthur Popper (zoology).

# NEWS

## George Ross Jr., 1938-1993

(On January 3, 1993, George Joseph Ross Jr., associate professor of music and founder of Maryland's Jazz Studies Division, was discovered dead of a cerebral hemorrhage at his home in Richmond, Virginia. The following article was written by Brianne Friel, a doctoral student in English who worked closely with Ross and knew him for several years.)

Throughout his life as a musician and educator, George Ross was loved and respected by students, faculty, and music reviewers.

Born and raised in Richmond, Virginia, he earned a B.S. from Virginia State College in 1961, and Master's and Doctoral degrees from Eastman School of Music in 1966 and 1975, respectively.

He performed as a classical bassoonist with the Eastman Philharmonic Orchestra, the Eastman-Rochester Symphony, the Richmond and Norfolk Symphony Orchestras, and the New York Philharmonic before turning to what would be his lifetime love and devotion, jazz tenor sax, especially beebop.

Founder and leader of the George Ross Quartet, Ross also performed as a jazz soloist with the Eastman Jazz Ensemble, the Navy Commodores, the Baltimore, Fairfax, and National Symphony Orchestras, and many other groups. He soloed with Ella Fitzgerald, Sarah Vaughn, Stanley Turrentine, Ronnie Liston Smith, Ron Carter, Slide Hampton, Thad Jones, Hubert Laws, Gap Mangione, Sonny Stitt, and Billy Eckstein.

In recent years, he performed regularly at the National Theatre in Washington, D.C., the Lyric Theatre in Baltimore, the Schubert Theatre in Philadelphia, and as a guest soloist at Lincoln Center.

Reviewers attested to the beautiful spirituality and charisma of his music. *Washington Post* critic Richard Harrington called him a "virtuoso improviser" and "a haunting melodist." *Richmond Times-Dispatch* reviewer Clarke Bustard said "the virtuosic Ross...showed sparks" during his extended solos, and Burt

Bacharach said he was a "killer saxophonist."

In addition to his performing career, Ross was an educator of great renown throughout the state of Maryland and the Washington, D.C. area. He served as a clinician and sax soloist with college and university jazz bands throughout the United States and Canada. He was a member of the International Musical Festival Committee, the National Jazz Education Association, and Phi Mu Alpha.

He tried to share his special talents for teaching jazz music through workshops he created and taught during special in-service sessions for jazz educators. Some of his workshop topics included jazz appreciation, methods for teaching proper jazz styles, and methods for teaching jazz improvisation.

Ross also served as a clinician and adjudicator to students in the Maryland state public schools. Summarizing Dr. Ross' contributions to younger students, Charles R. Caputo, coordinator of Instrumental Music for Montgomery County Public Schools, said Dr. Ross "brought joy and encouragement to all of our young musicians through sound instructional principles of jazz performance, his wealth of historical knowledge and personal experiences, and a magnificent amount of good humor."

Ross also volunteered his time and talent to the Montgomery County Association for Children and Adults with Learning Disabilities, the Clifton T. Perkins hospital, the Virginia Literacy Foundation, and the Maryland Artists Scholarship Benefit Series. He was also selected by the students at Maryland to perform for their student celebration in honor of President William E. Kirwan.

But the greatest love of his life and the focus of most of his seemingly boundless energy was not his own performance or professional standing. His jazz bands and students at the University of Maryland always came first.

Without Dr. Ross, there would not have been a jazz division at Mary-

land. He developed and designed the division's classes, many of which he taught himself. Since coming to the university in 1979, he produced an outstanding Jazz Ensemble and Jazz Lab Band, and he created a jazz improvisation class and several independent studies symposia.

He recently brought internationally famous jazz saxophonists Stanley Turrentine and Ron Carter to Maryland to play in concert with the student jazz ensemble. He also conceived and sponsored the first and second Rossonian Jazz Festivals, which gave the ensembles a chance to perform with jazz musicians like National Endowment for the Arts award winner Philip Burlin.

Each year he took the Maryland jazz bands to the University of the District of Columbia's Big Band Festival, broadcast on WDCU-FM radio. At the UDC festivals, the Maryland jazz bands earned a sound reputation.

Ross recently said that his single proudest accomplishment was instituting a jazz major in Maryland's Music Department. It took him eleven years, but in 1989 it became possible for a student to get a degree in Jazz Studies.

Dr. Ross' annual performances on the mall during the annual "Art Attack" arts festival and his Wednesday afternoon jazz sessions, held in the Student Union atrium and packed each week, will be sorely missed, especially by his jazz students. He devoted his life to them, and their accomplishments in music and in life (now and in the future) constitute his true legacy.



George Ross

—Brianne Friel

## Robots "Fly" Through the Water

*continued from page 1*

Teleoperator), a dexterous manipulator that assembles space structures; and SCAMP (Supplemental Camera and Maneuvering Platform), a robot that provides a video view of repair operations.

According to Akin, his lab has been approached by space insurance companies that are interested in the

use of telerobots for the repair of satellites. Currently all space telerobots approved for future development are Canadian and Japanese. With the Space Systems Laboratory and other such facilities, the U.S. is expecting to eventually enter the space telerobot industry in force.

The Space Systems Laboratory also provides a unique educational experience for both graduate and

undergraduate students. The students are heavily involved in the design, building and operation of the robots and devices such as circuits and underwater keyboards, using the facility's computers and machine shop.

The facility was designed by Akin and university architects Tom Carcaterra and David Donaldson.

—Fariss Samarrai



# CALENDAR

## January 25–February 3

### 25 MONDAY

**University College Arts Program**  
**Photography Exhibit:** "Impressions East and West," 8–8 daily, University College Center of Adult Education Gallery, through March 28. Call 985-7154 for info.

**West Gallery Art Exhibit:** "The Ideal Copy," 8:30 a.m.–4:30 p.m., weekdays through Jan. 29, 1309 Art/Soc. Call 5-1442 for info.

**Graduate Student Government Meeting,** 3–5 p.m., 1143 Stamp Student Union. Call 4-8630 for info.

**Horticulture Social,** for faculty, graduate students, and staff, 4 p.m., 1102 Holzapfel. Call 5-4336 for info.

**Space Science Seminar:** "The Steady-State and Dynamical Structure of a Cosmic-Ray-Modified Termination Shock," Gary Zank, U. of Delaware, 4:30 p.m., 1113 Computer and Space Sciences. Call 5-4855 for info.

### 26 TUESDAY

**Campus Recreation Services,** Table Tennis Doubles entries open, 8:30 a.m., 1104 Reckord Armory. Call 4-7218 for info.

**CIDCM Brown Bag Lunch Seminar:** "The Relevance of the International Protection of Human Rights to Democratization and Peace," Edy Kaufman, 12:30–1:30 p.m., 2136 Mill. Call 4-7703 for info.

**Maryland Opera Studio, Scenes Program** #1, 12:30 p.m., Tawes Recital Hall. Call 5-5546 for info.

**Committee on History and Philosophy of Science Lecture:** "Monte Carlo Methods and Simulation Modeling: An Introduction," Paul Smith, 4:15–6 p.m., 1407 Chemistry. Call 5-5691 for info.

**Campus Recreation Services,** free aerobics class, 5–6 p.m., Reckord Armory Gym. Call 4-7218.

**Dingman Center for Entrepreneurship Seminar:** "Founders and Investors: Partners or Adversaries?" 6–9 p.m., Stouffer Harborplace Hotel, Baltimore. Fee is \$20 for UMCP faculty, staff and students. Call 5-2151 for info.\*

**Maryland Opera Studio, Scenes Program** #2, 8 p.m., Tawes Recital Hall. Call 5-5546 for info.

### 27 WEDNESDAY

**Psychology Seminar:** "Optical and Electrophysiological Studies of Rhythm Generation in the Developing Spinal Cord," Michael O'Donovan, NIH, noon, 1208 Zoo/Psych. Call 5-6909 for info.

**Counseling Center R&D Meeting:** "Are the Study Skills We're Teaching Obsolete?" Martha Maxwell, consultant on educational skills, noon–1 p.m., 0106 Shoemaker. Call 4-7691.

**Meteorology Seminar:** "A Challenge of a NASA Earth Probe Mission: How to Measure Rainfall From Satellites When You Can't," Benjamin Kedem, 3:30 p.m., 2114 Computer and Space Sciences. Coffee and cookies served at 3 p.m. Call 5-5392 for info.

**Maryland Opera Studio, Scenes Program** #1, 8 p.m., Tawes Recital Hall. Call 5-5546 for info.

### 28 THURSDAY

**Employee Development Seminar:** "Financial Success in a Recovering Economy: Tax Planning," Fusco Financial Associates, Inc., tax explanations and strategies, 10 a.m.–noon, 1101U Administrative Services. Call 5-5651 for registration and info.

**CESAR Lecture:** "Recent Research on the Drugs-Crime Connection," James Inciardi, Univ. of Delaware, 3–4:30 p.m., Stamp Student Union Atrium. Call 403-8329 for info.

**Committee on History and Philosophy of Science Lecture:** "Discovering Artificial Reality: The History of Monte Carlo Simulations," Peter Gelison, Harvard, 4:15–6 p.m., 1407 Chemistry. Call 5-5691 for info.

**Campus Recreation Services,** free aerobics class, 5–6 p.m., Armory Gym. Call 4-7218

### 29 FRIDAY

**Speech Communication Colloquium:** "Interaction Rhythms and All That Jazz: Interaction and Attachment in Adults and Infants," Joseph Cappella, U. Penn., noon, 0104 Skinner. Call 5-6524 for info.



**Director Nicholas McGegan, who earned a Grammy Award nomination in 1991, returns to Maryland on Jan. 30 with a program of sublime vocal and instrumental music for harpsichord, archlute, strings, and soprano by Corelli, the two Scarlattis, Purcell and Handel at 8 p.m. at the National Presbyterian Church (free pre-concert discussion, 6:30 p.m.). Tickets are \$18 regular admission, \$16.20 faculty and staff, \$15.50 seniors, and \$7 students. Call 403-4240 for tickets and info.**

**Maryland Opera Studio, Scenes Program** #2, 8 p.m., Tawes Recital Hall. Call 5-5546 for info.

### 30 SATURDAY

**Men's Basketball vs. Duke University,** 1:30 p.m., Cole Field House. Call 4-7070 for info.\*

**Women's Basketball vs. N.C. State University,** 7:30 p.m., Cole Field House. Tickets are \$6 for adults, \$3 for youth and seniors. Call 4-7070 for info.\*

**Concert Society at Maryland:** Arcadian Academy, directed by Nicholas McGegan, 8 p.m., National Presbyterian Church; pre-concert discussion, 6:30 p.m. Tickets are \$18 regular admission, \$16.20 faculty and staff, \$15.50 seniors, and \$7 students. Call 403-4240 for tickets and info.\*

### 1 MONDAY

**Black History Month Opening Ceremonies,** a program to celebrate and highlight Black History Month and campus-sponsored events, noon, Prince George's Room, Stamp Student Union. Call 4-7172 for info.

**Black History Month Lecture:** "Language and Race: The Continuing Controversy over Black English Vernacular," 2–4 p.m., 2166 LeFrak. Call 5-4214 for info.

**Workshop:** "Job Search Strategies for Multi-Ethnic Students," Feb. 1, 3, 9 and 11, 3–5 p.m., 0131 Reckord Armory; Feb 12, 1–3 p.m., 0220 Jimenez. Call 4-7234 for info.

**Contemporary Spanish Cinema: Pascual Duarte,** (Richard Franco, 1975), 4p.m., The Language House, St. Mary's Hall. Call 5-6441 for info.

**Horticulture Colloquium:** "Low Oxygen Effects on the Biochemistry of Potato Sweetening in Low Temperature Storage," Dinbo Zhou, 4 p.m., 1102 Holzapfel. Call 5-4336 for info.

### 2 TUESDAY

**Committee on History and Philosophy of Science Lecture:** "Simulation Modeling in Particle Physics," Nicholas Hadley, 4:15–6 p.m., 1407 Chemistry. Call 5-5691 for info.

### 3 WEDNESDAY

**Black History Month Video,** the Office of the Bursar sponsors a documentary/biography of famous black people in history every Wednesday in February, noon–2 p.m., 1138 Lee. Call 5-9005 for info.

**Video-Teleconference:** "A Celebration of Black History. Beyond the Dream V: The Writers, The Story, The Legacy," 1–3 p.m., Colony Ballroom, Stamp Student Union. Call 4-7172 for info.

**Black History Month Film: Quilombo,** sponsored by Dept. of Spanish and Portuguese, 3 p.m., St. Mary's Language House. Call 5-6441 for info.

\*Admission charged for this event. All others are free.

Note: When calling from off-campus phones, use the prefix 314- or 405- respectively for numbers listed as 4-xxxx or 5-xxxx.

## Kirwan Returns from Taiwan

*continued from page 1*

Herman, dean of the College of Computer, Mathematics and Physical Sciences, and Chuan Liu, professor of physics.

Kirwan's meetings in Taiwan were designed to strengthen existing UMCP relationships with the National Palace Museum and the Taipei Fine Arts Museum, some of which are presently being jointly carried out with the Smithsonian Institution, and to develop new joint projects in scientific, engineering and business fields.

In addition, he explored with the Ministry of Education a Taiwan-funded program that brings professors and other specialists from Taiwan to the U.S. for lecture and research programs.

"We hope that these will be reciprocal relationships that can be fully advantageous to both countries," Kirwan says.

The development of Chinese and Japanese culture and language programs has been singled out for special attention at College Park in the next few years. Already there is a

Chinese cluster in St. Mary's Hall (Language House).

During the past two summers the university has offered a Summer Institute for High School Teachers of Chinese throughout the U.S., funded by the National Endowment for the Humanities (NEH), and in the summer of 1993, the university will offer a Summer Institute on the Art of Imperial China, also funded by NEH, which will be the first of its kind in this country.

—Beth Workman

